

ABSTRACT OF THE DISCLOSURE

A wavelength division multiplex transmission system with substantial functions for avoidance of defects is provided. The system comprises an optical transmission device and an optical receiving device. The optical transmission device comprises an operating-system optical transmission unit and a standby-system optical transmission unit, and distributes transmission signals to be transmitted among a plurality of wavelength components, converts the signals into WDM signals, and transmits the WDM signals to a WDM transmission network. The optical receiving device comprises an operating-system optical receiving unit and a standby-system optical receiving unit, and restores WDM signals from the WDM transmission network into transmission signals. The operating-system optical transmission unit and/or the standby-system optical transmission unit has optical transmission unit internal defect avoidance means which, upon the occurrence of a prescribed number or fewer of wavelength component transmission defects, avoids defects within the optical transmission unit.